

**THE MOST  
IMPORTANT  
THING IN YOUR  
LIFE?**



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# TEN REASONS

**EVERYONE SHOULD  
START BARBELL  
TRAINING TODAY.**

A scientific exploration.



# LONGER LIFE

On average, the reported decline in muscle strength is between 20 and 40% from the age of 50 if strength training is not part of one's routine. This is further progressed in individuals in their 80's and 90's with decreases in muscle strength of up to 50%.

***Muscular strength is the number one physical predictor of longevity in men and women - with stronger people having an up to 31% lower risk of early death from all causes.***

Full-body barbell lifts such as squats, deadlifts, presses and pulls are best for developing strength in a safe and effective way at all ages, including the elderly.

Stronger people have a greater resilience to disability and disease, perform daily tasks with greater ease, are more likely to avoid care homes early, and enjoy a longer life.



# REJUVENATE YOUR BRAIN

Brain-derived neurotrophic factor is considered the most important chemical for nerve growth. BDNF is active in the hippocampus, the cortex, and in the basal forebrain – regions that take part in learning, memory, and thinking. The amount of BDNF decreases with age, and its decline is correlated with an increase in depression, degenerative nerve disease, and frailty. Strength training has been shown to elevate BDNF in older adults.



*The heavier the weights an older person can lift, the greater the cognitive benefits of strength training appear to be.*



Further studies have shown that strength training is effective in stopping and in some cases even reversing cognitive decline in older adults with mild cognitive impairment (MCI) by having a preserving effect on brain tissue.

This is likely due to an anti-inflammatory and anti-oxidative effect which protects brain tissue and functioning by countering age-related decline.



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Who would have thought that strength training has the potential to rejuvenate your brain?

# HEALTHIER JOINTS



Rheumatoid arthritis is a long-term disorder leading to pain and inflammation in the joints. Women are 2.5 times more likely to develop it compared to men, with the average age being 66.8 years.

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*Strength training has been shown to be effective in easing pain and improving function in individuals with rheumatoid arthritis when compared with subjects who did not strength train.*

One study showed that after a two-year follow up, no progression in joint damage occurred in subjects who strength trained in that period, suggesting that strength training has a protective effect on joints.

The load on the bar has to progressively increase over time as this is how muscular strength is developed and connective tissue made thicker - making the body more resilient to stress and therefore able to perform daily tasks with less pain and greater ease.

**It is safe to say that strength developed at an early age mitigates or even prevents the debilitating effects of rheumatoid arthritis at an older age.**



# STRONGER BONES

Osteoporosis is a skeletal disorder characterized by decreases in bone mineral density (BMD) with a resulting increase in bone fragility and susceptibility to fracture. From the age of 40, BMD declines progressively by

0.5% annually, with women being particularly affected. Estimations show that over 200 million people worldwide suffer from osteoporosis, with costs in the UK being estimated at over £2 billion per year.

An emerging body of literature has shown that resistance training alone or basic activities such as walking fail to stimulate significant increases in bone mineral density compared to strength training - challenging the conventional belief that "easy" is better. In comparison, high forces produced by strength training are transferred to the bones which have to adapt by getting denser and thicker.

The loading of the musculoskeletal system with heavy weights is crucial as it stimulates osteoblast activity for better bone remodeling and increases in bone mineral density.

Strength training done with light to moderate weights and high repetitions has not demonstrated any benefits for increasing bone mineral density - putting into question the usefulness of the rather popular "light weight" approach.

***Full-body barbell lifts such as squats, deadlifts, presses and rows are best for strengthening bone tissue as they place the highest load on the body and thus produce a highly potent stimulus for bone remodeling.***

# BETTER HEART HEALTH



High blood pressure – or hypertension – affects around 5 million people in the UK, with an estimated spending of £2 billion per year on office visits, medication, and lab tests. Hypertension is also one of the leading pre-stages to the number one killer of men and women: heart disease.

*The dominant message is that aerobic exercise lowers blood pressure, but many people are surprised to learn that strength training is an equally effective way for lowering it - among the many other benefits this type of training provides compared to aerobic activity.*

For example, middle-aged men withdrawn from blood pressure-lowering medication showed a mean reduction of 12 and 16mm/Hg for systolic (SBP) and diastolic blood pressure (DBP) after three months of strength training, which is more than the effect of

common blood pressure-lowering medication. Further studies have shown decreases in blood pressure after several months of strength training in elderly women, ranging from drops of 10.5-14mm/Hg in systolic blood pressure as well as 4-6mm/Hg in diastolic blood pressure.



Combined with better arterial function, reduced inflammation, as well as enhanced body composition, strength training is a powerful tool for improving heart health and lowering blood pressure.

# BUILDING MUSCLE

Age-related muscle loss is a big challenge: Known as sarcopenia, scientists have identified muscle loss as a starting point for a cascade of physiological problems, including bone loss, arthritis, fat gain, diabetes, heart disease, and early death.



For example, one study found that sarcopenic women had 3.6 times higher rates of disability, while men had 4.1 times higher rates compared with subjects who had normal muscle mass.

***In a study assessing 3659 subjects over the age of 55, low muscle mass was predictive of an increase in mortality risk. Those results were independent of body fat levels as well as cardiovascular and metabolic risk factors.***

Adults who fail to perform strength training lose over 2kg muscle mass every decade from age 25 - 50. Muscle loss accelerates at mid-life with humans losing almost 5kg of muscle each decade after age 50.

Strength training with barbells should be the primary focus of a program targeting sarcopenia. Other modes of exercise do not provide sufficient overload to produce increases in muscle mass and therefore significant health protection.

# SURVIVING CANCER

Strength training is a valuable tool for cancer survivors as its physiological adaptations combat many of the common negative side effects of cancer treatments, including loss of muscle mass, fatigue, pain, and loss of strength.



*One study showed that patients performing strength training during chemotherapy achieved significantly better muscle strength, lean body mass, self-esteem, as well as a higher treatment completion rate than inactive controls.*

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Women performing progressive resistance training showed better emotional functioning in the first year after operation compared to a control group.

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A systematic review assessing around 500 subjects showed that cancer survivors who had undergone a strength training regime for several months showed better quality of life scores than the non-active group.

As cancer and its treatments come with a high energy bill, strength training can have tremendous benefits for developing resilience, physical and emotional strength, as well as improving life quality in cancer survivors.

# TACKLING OBESITY

Having excess amounts of body fat (>30%) increases the risk for a number of health consequences including coronary artery disease, heart attack, and stroke.

***The conventional wisdom that aerobic exercise is the solution to obesity dismisses the overwhelming benefits of strength training for weight loss. Greater muscle mass equals more calories burned at rest, a higher release of fat-burning hormones such as testosterone and growth hormone, as well as better insulin sensitivity.***



For example, a study comparing strength training versus aerobic training on a 800 calorie liquid diet showed greater fat loss in the weight training group compared to the aerobic group. Moreover, the strength training group maintained their muscle mass, while the aerobic group experienced a drop thereof.



In females, growth hormone (a potent fat-burner) is elevated when performing heavy strength training (e.g. 3 repetitions per set) over a six-month period – adding further proof to the fact that hitting the big lifts plays a key role in improving body composition in women.

**Another compelling reason for females to start barbell training today!**

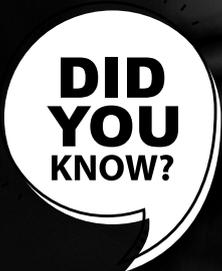
# TACKLING DIABETES



The cost of diabetes to the NHS equates to over £25,000 per minute. In total, an estimated £14 billion is spent each year on treating diabetes, with the cost of treating complications making up the largest part.

Type 2 diabetes is a result of muscle cells becoming resistant to insulin. Since insulin opens the gates for muscle cells to absorb glucose and other nutrients from the blood stream, insulin resistance becomes a major factor in body fat gain, blood sugar dysregulation, obesity, and eventually diabetes.

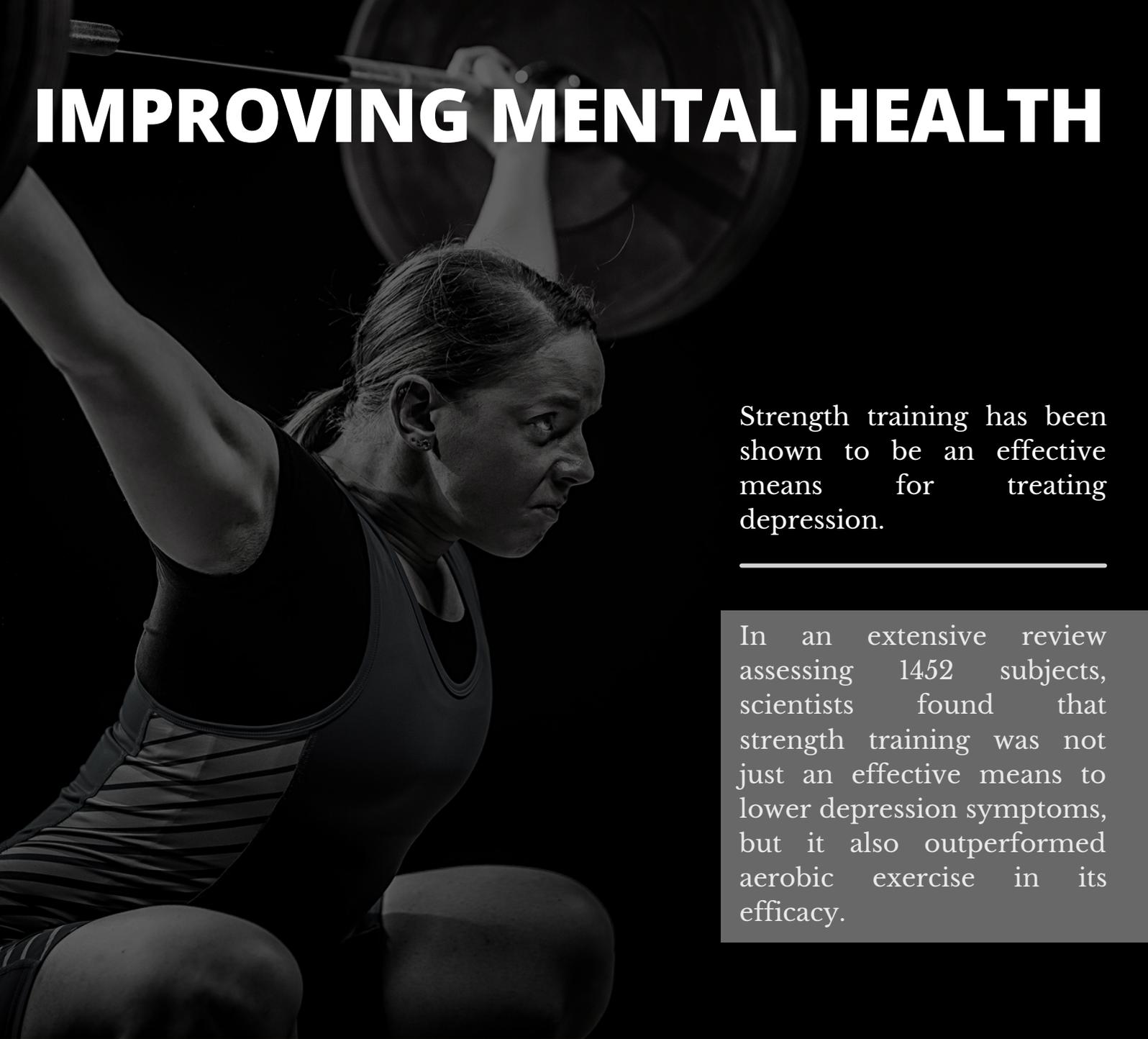
***Strength training is a proven intervention for countering insulin resistance as lifting weights and the subsequent repair of muscle tissue require glucose, which makes the cells more sensitive to insulin.***



For every 10 percent increase in muscle mass through strength training, we receive a roughly 10 percent increase in insulin sensitivity. The more muscle mass we have, the more insulin receptors we have, the better our uptake of glucose into the cells, the lower the risk of type 2 diabetes.

Strength training has further been shown to be highly effective in lowering HbA1C, a common biomarker used to diagnose Type 2 diabetes.

# IMPROVING MENTAL HEALTH



Strength training has been shown to be an effective means for treating depression.

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In an extensive review assessing 1452 subjects, scientists found that strength training was not just an effective means to lower depression symptoms, but it also outperformed aerobic exercise in its efficacy.

***Most strikingly, the heavier the weights subjects lifted, the stronger the effects on lowering depression were.***

This has likely to do with a higher release of mood- and tissue-promoting chemicals in the brain - as well as building confidence and a sense of achievement through lifting heavier weights over time.

**"Stronger body - stronger mind" does hold true.**

# WHY BARBELLS?

01.

Barbells are the tools of strength as they allow for the highest weight to be lifted. No other tool - such as dumbbells, machines, or bands - comes close.

02.

Strength is the ability to produce force against an external object. The higher the weight on bar, the higher the resistance to overcome, the stronger we are.

03.

Barbells allow for infinite progress as the weight can be increased over a very long time. They are therefore the best tool for long-term health and physique improvements.

04.

Total-body lifts such as squats, deadlifts, and presses put the highest demands on the body and therefore give maximum return within minimum time.



# FAQ'S

## ***Are there any requirements for barbell training?***

There are no requirements to start barbell training apart from your willingness to get stronger by training 2-3 times per week on a regular basis.

## ***Do I need to be a certain age to start?***

Whether you're 12 years young or in your 80's, anyone at any age can greatly benefit from strength training. No matter if you're an athlete, aspiring lifter, busy mom, or a retiree wanting to enjoy a better life quality - barbells are your best friend.

## ***Is it safe?***

Barbell training is extremely safe as movements are performed in a controlled way. Under our guidance you are learning proficient technique so you get the most out of each lift.

## ***Will I get big?***

Unless you inject something into you that will get you banned from the Olympics, you won't.

Females: you have around 28 times less testosterone than men do. You find it naturally very hard to get big. Don't worry about your muscles blowing up like a balloon. It won't happen. Hit the barbell, hit it heavy, and see how your aesthetics improve. For some reason, heavy weights are still associated with big muscles. Nothing could be further from the truth.

Males: If you WANT TO get big, you can. For this you need to eat plenty of calories and be on the very top of your training. But you don't have to get big if you don't want to. Just get your numbers up on the bar, eat at maintenance calories or slightly above, and you can leave the Herculean physique behind for now.

FOR MORE INFORMATION, PLEASE VISIT

[strongforlife.uk](http://strongforlife.uk)

OR CONTACT US BELOW TO BOOK A FREE  
CONSULTATION:

[oliver@strongforlife.uk](mailto:oliver@strongforlife.uk)

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WE LOOK FORWARD TO HEARING FROM YOU.



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